

CLAIMS

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As 1. A method for fabricating an implantable device,
the method comprising:

5 fabricating an approximate replica of the bone-
like structure by sequentially solidifying
adjoining, cross-sectional intervals of a fluid
material along an axis.

10 2. A method in accordance with claim 1 wherein a
design data base is first generated by scanning at
least a portion of an animal's body using imaging
techniques to generate a design base of measurement
data representing size and shape of the bone-like
tissue in a three dimensional coordinate system and
then fabricating said replica in correspondence with
the data in said design data base.

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3. A method in accordance with claim 1 wherein the fluid material comprises ceramic particles.

4. A method in accordance with claim 1 wherein the scanning step comprises generating the data base by scanning a body part of a healthy individual animal and archiving the data base for subsequent use.

5. A method in accordance with claim 4 wherein the method further comprises modifying the data base to make selected changes in the size and shape of the hard tissue represented by the data base.

6. A method in accordance with claim 1 wherein the fluid material *step of solidifying a* comprises *bonding* a photo-active polymeric material.

7. A method in accordance with claim 1 wherein the fluid material *step of solidifying a* comprises *sintering* ceramic particles ~~which are sintered.~~

8. A method in accordance with claim 1 wherein the fluid material *step of solidifying a* comprises *bonding a first ceramic material* particles, ~~which are cemented~~ *particles of* together with a second ceramic material.

9. A method in accordance with claim 1 wherein the fluid material comprises particles which are cemented together with a polymer.

10. A method in accordance with claim 1 wherein the fluid material comprises ceramic particles suspended in a liquid monomer and wherein the monomer is polymerized to form a solid polymer network and wherein at least a part of the polymer is then removed.

11. A method in accordance with claim 1 wherein the fluid material comprises ceramic particles and wherein the solidified replica is then reacted with an agent to change its composition.

12. A customized implantable device prepared by the method of claim 1.

13. A customized implantable device prepared by the method of claim 2.